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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/580,373 Filing Date: May 23, 2006 Appellant(s): PERNOT ET AL.

> Gary M. Cohen For Appellant

**EXAMINER'S ANSWER** 

This is in response to the appeal brief filed October 27, 2008 appealing from the Office action mailed November 28, 2007.

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#### (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

#### (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

#### (3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

In view of appellant's remarks the status of the claims has changed by virtue of the indication of allowability of some dependent claims.

This appeal involves claims 33-42, 44-46, 54-56 and 58-64.

Claims 47-53, 57 and 65 are objected to (previously finally rejected) as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-32 and 43 have been canceled.

## (4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

#### (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

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#### (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

## (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### (8) Evidence Relied Upon

5,902,105	UEJIMA et al.	5-1999
5,011,408	NAKANISHI	4-1991
2,263,808	HUTCHINSON	11-1941
5,575,647	GRUBBS	11-1996
6,149,430	NEMETZ et al.	11-2000

### (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 33-42, 45, 46, 54-56, 58-61 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uejima et al (5902105) in view of Nakanishi (5011408).

Uejima shows a dental handpiece 11, tool holder assembly, Fig. 4, body 13, head 14, electrically insulated body and head, column 6, lines 21-44, the head and housing have openings that are inherently capable of introducing components for assembly, electric connections 31, 37 with a casing 18, Fig. 2, barrel pinion 14d and output pinion 14g that are electrically conductive, column 5, lines 33-40. Uejima does not show forming the body as a unitary part. Nakanishi shows a handpiece 10 having a body 13 and head 12 formed as a unitary body, see Fig. 1, a head opening to allow assembly of component

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parts, see 18 in Fig. 1, a body opening to allow assembly of component parts, see 21 in Fig. 1, and shows a body opening at the other end, see Fig. 4. It would be obvious to one of ordinary skill in the art to modify Uejima to include a unitary body with apertures for assembly as shown by Nakanishi in order to improve manufacturing and lower costs. As to claims 35-41, the specific metal parts that are used to conduct electricity would be an obvious matter of choice to one of ordinary skill in the art in using the desired path within the body for the electricity to take. As to claim 45, Nakanishi shows using an elastic element (belt) 18a. As to claim 54, Nakanishi shows using a split structure 118a, Fig. 6. As to claim 63, Uejima teaches using synthetic resin, the process of making by molding is an obvious matter of choice in the process of forming the shown structure.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uejima et al (5902105) in view of Nakanishi (5011408) as applied to claim 33 above, and further in view of Hutchinson (2263808). The above combination does not show a grease cavity. Hutchinson teaches grease in cavities that go through orifices to pinion parts. It would be obvious to one of ordinary skill in the art to modify the above combination to include a grease cavity as shown by Hutchinson in order to better lubricate the pinion.

Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uejima et al (5902105) in view of Nakanishi (5011408) as applied to claim 61 above, and further in view of Grubbs (5575647). The above combination does not show a head angle as claimed. Grubbs teaches mounting the head at an angle between 100 and 130 degrees. It would be obvious to one of ordinary skill in the art to modify the above

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combination to include using a head angle as shown by Grubbs in order to better reach areas in the mouth.

Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uejima et al (5902105) in view of Nakanishi (5011408) as applied to claim 63 above, and further in view of Nemetz et al (6149430). The above combination does not show using a polymer material. Nemetz teaches forming a handpiece by molding a polymer and teaches using polyphenylene sulfide, column 10, line 44. It would be obvious to one of ordinary skill in the art to modify the above combination to include a handpiece made by molding polymeric material as taught by Nemetz in order to produce an economical handpiece in the desired shape.

## (10) Response to Argument

Claim 33: Appellant argues that while Uejima teaches an electrically insulated handle and head, these elements are separate elements not meeting the limitation of unitary, and therefore, not providing an electrically insulating envelope as claimed. And further argues, that while Nakanishi shows a unitary handle and head, the reference is not directed to carrying electricity or being insulated, and therefore, also does not show or suggest an electrically insulating envelope. This argument is disagreed with because Uejima, when the handle and head are assembled, does provide an electrically insulating envelope, and because it is known in the art to form such elements as one-piece, and because, the present disclosure teaches that the body comprised the head and handle, see Abstract, and that "the body is formed by an envelope (8), or external casing. The envelope (8) can be formed in a single piece, or in multiple pieces", page

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6, last four lines of the present specification. As such, there is no criticality to the unitary body forming the envelope, and the combination is held to be obvious and proper.

Claim 35: Appellant argues that while Uejima does show a chain of electrically conductive parts inside the handle, the reference does not show using the same parts for conducting the electricity as claimed in the present invention. This argument is disagreed with because, while Uejima does use a different path to route electricity through the inside of the handpiece body, the specific parts used would have been obvious to one of ordinary skill in the art who would be knowledgeable of the parts and materials used and of the properties of conducting electricity, and as such, would possess an expectation of success in choosing an electric path through the interior of a dental handpiece body.

Claims 36, 37, 39 and 40: These claims are directed to additional parts used in the electric circuit. Appellant repeats the same argument as made for claim 35 above, and further argues that the desired electric path used is not an obvious matter of choice as held. These arguments are held to be addressed in the response to the argument presented above with respect to claim 35.

Claim 45: Appellant argues that Nakanishi from line 66 of column 2 to line 56 of column 3, teaches the elastic element 18a engages the "connecting-removal unit 18" which is removably associated with the head housing 12 of the handpiece, and that this is unlike the elastic belt of appellants' attachment, which engages an aperture provided in upper portions of the head. This argument is disagreed with because claim 45 is directed to an elastic belt for tightening and releasing the dental instrument (bur)

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wherein at least one part of the belt has a section for engaging an aperture provided in upper portions of the dental instrument (bur). Nakanishi teaches that "unit 18 is formed by an elastic engagement member 18a in the form of a split ring adapted to abut on and engage with the bur 11 to secure the bur 11 in position", column 3, lines 1-4. Nakanishi further teaches that engaging projection 11b rests on the shoulders of 18a-iv for securing the bur 11, column 3, lines 30-35. That inherently teaches that 18a-iv, which is part of 18a, engages in the slot of the dental instrument below 11b. With respect to the terminology "aperture", the present disclosure only teaches or refers to a slot at the top of the head of the dental instrument, and as such, the shown slot is held to be an aperture as defined by the present invention. It is also noted that element 18 and 18a are located in the aperture of the head 12 of Nakanishi if appellant was referring to that aperture, however, the claim language does not refer to an aperture in the handpiece head.

Claim 54: Appellant argues that Nakanishi fails to show a conical part for interacting with a complementary conical part of a push-button as claimed. This argument is disagreed with because Nakanishi does show an inclined cam surface 18a-v for engaging a conical surface on the push-button 20, column 3, lines 60-65. This inclined surface is held to form a substantially conical shape.

Claim 55: Appellant argues Nakanishi fails to show a conical part provided on an undersurface of the split ring. While this statement is agreed with, the specific shape of the split ring is held to be an obvious matter of choice in the shape of a known element to one of ordinary skill in the art.

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Claim 56: Appellant argues that Nakanishi fails to disclose a conical extremity on the undersurface of the push-button for axially guiding the split ring. This argument is disagreed with because Nakanishi teaches, as pointed out above, an inclined cam surface 18a-v is engaged by the push-button 20 and clearly shows a conical surface on the underside of the push-button, Fig. 4.

Claim 44: Appellant argues that Hutchinson does not disclose a separating wall between the grease cavity and the barrel pinion. This argument is disagreed with because Hutchinson teaches the grease being forced though out the cavity of the head H, page 2, column 2, lines 30-55, and as such, the grease does pass though a wall, for example, the wall formed by elements 10, 11 and 17.

Claims 47-53: Appellants' remarks are considered persuasive and the status of these claims has been changed to "Objected To", and as such, these claims are no longer part of this appeal.

Claim 62: Appellant argues that Grubbs does not disclose the several features that have previously been referred to, as such, these remarks are responded to in the response above.

Claim 64: Appellant argues that Nemetz does not disclose the several features that have previously been referred to, as such, these remarks are responded to in the response above.

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## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/John J Wilson/ Primary Examiner Art Unit 3732

Conferees:

/Cris L. Rodriguez/ Supervisory Patent Examiner, Art Unit 3732

/Thomas Barrett/ TQAS TC3700